

Wax-Presses vs. Sun-Extractors.

H. H. ROOT.

The Ontario Honey Exchange.

W. A. CHRYSLER.

# AMERICAN BEE JOURNAL

43d Year.

CHICAGO, ILL., FEB. 5, 1903.

No. 6.

WEEKLY



MR. J. S. BARB AND APIARY, OF TRUMBULL CO., OHIO.  
(See page 84.)



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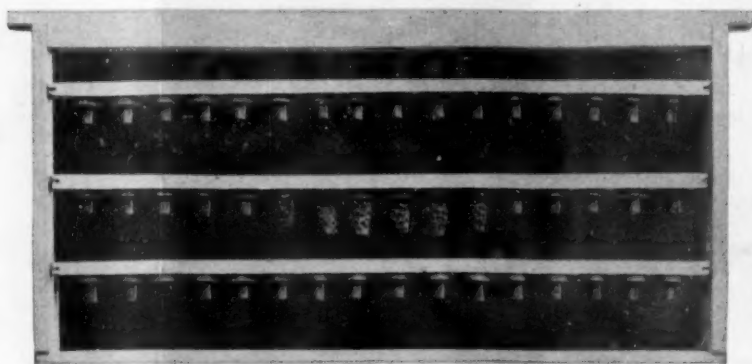
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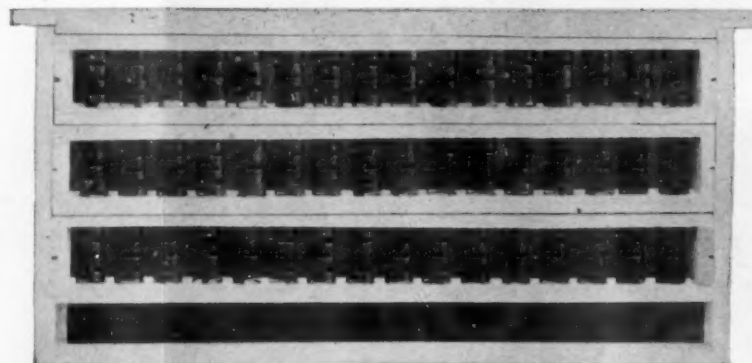
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CELL-CUPS AND FINISHED CELLS.



CAGES OF QUEEN EXCLUDING METAL.

# Stanley Queen Incubator and Brooder

An Arrangement that Allows the Bees Access to the Cells and Queens at all Times.

(Patent Applied for.)

One of the greatest objections urged against a lamp-nursery, or any kind of a nursery where bees are hatched away from the bees, is that the cells and their inmates are robbed of the actual care of the bees. When the bees have access to a cell, and the time approaches for the queen to emerge, the wax over the point is pared, and, as the queen cuts an opening through the cell, and thrusts out her tongue, she is fed and cheered in her efforts to leave the cell. A queen hatched away from the bees loses all of this food, cheer, and comradeship; and, until introduced to a nucleus, or full colony, has not the natural food that she would secure were she among the bees.

All of these objections are overcome by an invention of Mr. Arthur Stanley, of Lee Co., Ills. Mr. Stanley makes the cell-cups according to the directions given in Mr. Doolittle's "Scientific Queen-Rearing," sticking the base of each cell to a No. 12 gun-wad. By the use of melted wax these wads, with the cell attached, are stuck, at proper intervals, to a strip of wood exactly the length of the inside width of a Langstroth brood-frame. Two

wire staples driven into the inside of each end-bar, slide into slots cut in the ends of the cell-bars, and hold them in position.

The process of transferring larvae to the cells, getting the cells built, etc., have all been described in the books and journals, and need not be repeated here. When the cells are sealed they may be picked off the bar (still attached to the gun-wads); and right here is where the special features of the Stanley process steps in. Each cell, as it is removed, is slipped into a little cylindrical cage, made of queen-excluding zinc, the cage being about two inches long, and of such a diameter that the gun-wad fits snugly, thus holding the cell in place and stopping up the end of the cage. The other end of the cage is plugged up with a gun-wad. Long rows of these cages, filled with sealed cells, are placed between two wooden strips that fit in between the end-bars of a Langstroth frame are held in position by wire staples that fit into slots cut in the ends of the strips. To hold the cages in their places, holes, a trifle larger than the diameter of the cage, are bored, at proper intervals, through the upper strip, thus allowing the

cages to be slipped down through the upper bar, until their lower ends rest in corresponding holes bored part way through the lower bar.

A frame full of these cages, stocked with cells, may be hung in a queenless colony, and will require no attention whatever except to remove the queens as they are needed. The workers can freely pass into and through the cages, cluster upon the cells, care for them, and feed the queens after they hatch, exactly as well as though the queens were uncaged.

These cages are unsurpassed as introducing cages, either for fertile or for virgin queens. The bees are not inclined to attack a queen in a cage to which they can enter, yet they can surround, caress, and feed her. They can become acquainted with her, and give her the same scent as themselves. When desirable to release her, one end of the cage can be stopped with candy, and the bees allowed to liberate her by eating it out.

By putting food in one end of the cage, a queen may be kept caged, away from the bees, the same as in any other cage.

Price, \$5.00, by Express, Or with the American Bee Journal one year—both for \$5.50.



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144 & 146 E. Erie Street, CHICAGO, ILL.



# AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 THE OLDEST BEE-PAPER IN AMERICA

43d YEAR.

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No. 6.

## Editorial.

**Bee-Keeping in Illinois.**—The following concerning the value and importance of the bee, honey and beeswax industry of the State of Illinois, is taken from the United States census report for 1900:

Number of bee-farms or apiaries.....	34,932
“ colonies of bees.....	179,953
“ pounds of honey.....	2,961,080
“ beeswax.....	75,290
Value of honey and beeswax.....	\$343,200

In the order of largest amount of honey produced by States, Illinois is 5th. Texas takes the lead, except in average number of pounds per colony, and in this Arizona is first.

Surely, with such a showing as Illinois is able to make, her bee-industry deserves recognition at the hands of the Legislature, by way of an anti-foul-brood law, which should be passed this winter. It will not do for Illinois to be the last in the list of progressive States in this regard. Already Wisconsin, Colorado, California and Michigan are ahead.

**Bee-Keeping in the South** is, in its leading features, the same as in the North. The natural history of the honey-bee and its habits are the same everywhere. Yet there are differences due to locality that can not be ignored except at a loss. Wintering in the South scarcely needs a thought; in the North it is a perplexing study; and if the attention be closely given to this and some other differing points, one is likely to imagine a greater difference than really exists between the two regions. This leads a correspondent from the South, while greatly appreciating the value of the American Bee Journal, to say:

“I am somewhat disappointed in not seeing anything from this section, or anywhere near us at all. Our climate and conditions are very different from those described by most of your writers. I am only a beginner, and therefore not able to write for old veterans, or I would try now and then. Can't you stir up some of the Southerners?”

This journal, as its name implies, is not sectional. It is intended for the whole country. If our correspondent will go through the different numbers of the American Bee Journal for the past year, and cross out all matter not applicable to his section of country, he will probably be surprised to find how little will be crossed out, and what a large mass of useful reading he will have left.

Moreover, it is largely what its subscribers make it. If one part of the country sends in

more contributions than another, it is mainly because the contributors so will it. Neither is our correspondent alone in finding no contributions from any one within easy hailing distance. This is a country of a good many square miles, and correspondents are well scattered. Many a reader at the North can also say, “I find no writer from anywhere near us at all.”

Our correspondent, and others like him, may help the matter by putting aside their modesty and sending in contributions themselves, telling of their experiences and their wants, and they will probably find that nothing will more quickly draw out others situated in like conditions, so that they will not have long to complain of hearing from no one “anywhere near us at all.”

**Insects and Plant Diseases.**—At the Universal Exposition to be held in St. Louis in 1904, under the classification of Useful Insects and Their Products, Injurious Insects and Plant Diseases, there will be installed in the Agriculture Palace displays as follows:

Systematic collections of useful and injurious insects.

Bees. Silkworms and other bombycids. Cochineal insects.

Systematic collections of vegetable parasites of plants and animals.

Appliances for rearing and keeping bees and silkworms. Their products—honey, wax, cocoons.

Appliances and processes for destroying plant-diseases and injurious insects.

There will be no charge for space occupied by such exhibits, and a limited amount of power for the operation of mechanical devices to illustrate processes of special interest will be furnished to exhibitors without charge.

**Producer's Name on Honey.**—We have received the following from Mr. P. D. Jones, of Livingston Co., N. Y.:

EDITOR YORK:—Will you allow me a small space in the American Bee Journal to say a few words on your comments on marking honey-cases, on page 627 (1902)?

You say that you received a nice lot of honey with the producer's name on each section and case, and that you scraped off all the marks, and put on your own name. Now, I ask, Was that act an honest one? I say no. You robbed that producer of the honor and credit of producing and shipping a fine crop of honey, and took all the credit yourself. His address on his cases was to let dealers know where to find honey that was all right, and well put up for the market, so that next season there might be others that would want to deal with him, and it would make competition for his honey, and a better price, which means more money for his honey.

You say that it is not a safe rule to put your name on comb honey. Why not? I have kept bees and sold honey for 55 years, and I have never been hurt yet. I have no trouble

in getting rid of my honey, and my name is on every case that I ship.

You say that you have worked up a demand for “York's Honey,” and not Smith's, or Miller's, or Nelson's. But how did you do it? You bought some very nice honey that some one had taken a great deal of pains to produce, and put up in very fine style, and scraped off his name and put on your own, and palmed it off as your own production. Now, is that right? I say no. Had I ever sold you honey and learned that you scraped off my name and substituted yours in its place, I am certain that our dealings would have ended right then and there.

If the commission merchant wishes his address on the honey he buys, let him send his stencil-plate to the seller and ask him to use it on the cases, and not object to the producer's name being on at the same time; his wishes will be granted without fail.

You say that you have a right to put your name on if you are willing to stand responsible for its purity. What an idea! Did you ever buy any comb honey that was adulterated? If you have, and get any more, please send me some at my expense.

Some persons are ever ready to criticize others, but do not like to take the medicine themselves.

P. D. JONES.

We do not expect to buy any honey of Mr. Jones—wouldn't take it as a gift, if we were compelled to keep his name on it. We are not quite so foolish as to keep the producer's name on any honey we offer for sale, for Jones, nor Smith, nor several other producers would each produce all we sell during a season. And we don't care to have grocers ask us for more of Smith's honey, and be compelled to tell them we are out of it, when we have a lot more on hand from several other bee-keepers that we know is just as good, if not better than Smith's.

It is all right for Jones to put his name on his honey if he is retailing it *himself*, or selling directly to grocers, but we wouldn't care to have his nor anybody else's honey with name of producer on it.

We never say on our labels that we are the producers of the honey we sell, not even if it is really from our own apiary. That isn't necessary at all.

We hope that on the next wheat, or corn, or potatoes, or hogs, Mr. Jones produces and sells he will be sure to put his name—he should brand the hogs, see that his name is on every grain of the wheat, on every ear of corn, and on every potato! Any one can see the ridiculousness of all this.

We have spent hundreds of dollars in working up a demand for “York's Honey,” and not that of Jones, Smith, or even Yon Yonson. And our conscience is as clear as a bell on this subject, too.

**Bees Carrying Pollen.**—Do bees use judgment in carrying pollen? In some cases, perhaps in some places, bees carry in more pollen than in others. Some complain that

more is stored than is needed. Possibly this may not be true in every case where it is suspected. In spring a large amount of pollen is used to carry on brood-rearing, and if a stock of it had not been stored up in the previous summer the amount of brood reared might be curtailed. It is an interesting question to know whether the bees use enough judgment to let up on gathering pollen when they have a large stock on hand, or whether, like honey, it is gathered at all times when it can be had, whether the stock on hand be large or small.

One way to help decide the matter would be to take from a colony that had been queenless a long time all its combs of pollen and give them to a colony with a laying queen. Then, if the bees use any judgment in the matter, the bees with the laying queen might lessen their pollen-gathering and the queenless colony increase it, unless there is something in the nature of the case that makes old bees cease to gather pollen.

## Weekly Budget.

THE NATIONAL ASSOCIATION.—We have received the following announcement from Pres. Hutchinson, giving the result of the election held by the National Bee-Keepers' Association in December, 1902:

Having received from Ellis E. Mason, Secretary of the National Bee-Keepers' Association, the results of the December election for General Manager and three Directors, I make the following announcements:

Whole number of votes cast for General Manager 610, of which N. E. France received 489; E. T. Abbott, 117; scattering, 4. Mr. N. E. France is hereby declared elected as General Manager.

Whole number of votes cast for Directors 567, of which G. M. Doolittle received 364; W. F. Marks, 262; Thomas G. Newman, 249; Udo Toepferwein, 149; Wm. A. Selser, 105; Wm. McEvoy, 86; G. W. Vangundy, 74. The rest of the votes are scattered among 120 members, no one of them receiving more than 32 votes. Mr. G. M. Doolittle having received a majority vote, is hereby declared elected as Director. No other candidate for Director having received a majority vote, as is required by the Constitution, no other is elected. The Constitution says that the Directors' term of office "shall be four years, or until their successors shall be elected and qualified;" thus Mr. W. F. Marks and Mr. Thomas G. Newman retain their offices, at least for the present.

W. Z. HUTCHINSON,  
President National Bee-Keepers' Association.

On the subject of the election muddle in which the National Association now finds itself, Mr. Herman F. Moore, an attorney, and Secretary of the Chicago-Northwestern Bee-Keepers' Association, has this to say:

COOK CO., ILL., Jan. 27, 1903.

EDITOR AMERICAN BEE JOURNAL.—

I have read everything that has been printed on the General Managership trouble. There is no doubt but that the words, "has been regularly and properly nominated, and is believed to be worthy of your support," should never have been printed on the ballot. I can not excuse Mr. Eugene Secor for their presence there. He, a practical politician, must have known their impropriety at the time. Perhaps he thought this was only a family matter, and the ordinary rules of ethics did not apply. I hope I am not unjust or uncharitable when I say that I believe the true reason for his action was a desire to "get back" at Mr. Abbott. The presence in his

Annual Report, of words indicating that Mr. Abbott had never turned over the money, goes to prove this view.

Mr. Abbott never was my personal preference for General Manager, nor was Mr. France. But I felt that, as Mr. Abbott had agreed to submit his status to the election in December, there should have been no attempt to prevent such a submission. I believe the said words so printed on the ballot were the result of an effort on the part of some of our officers or members to "do up" Mr. Abbott, at all events. If so, such action is on a par with the most disreputable party politics, and must be openly condemned.

However, I think the old National is in no danger of immediate dissolution, any more than the family is in danger when the boy comes home and announces to father and mother that he is "not going to school any more." The young man gets a certain needed chastisement, and the great Institution goes along very much as before.

Let me say while I am writing, that our great body (the greatest bee-keepers' society in the world) must be governed by strict parliamentary rules. All bodies of men, associated for a common interest, have from time immemorial submitted themselves to certain rules that make for harmony and the dispatch of business. There are "Roberts' Rules of Order," "Reed's Rules," etc. Some of the errors into which our officers have fallen would have been easily avoided by following closely the rules of order applicable to such cases. This great body of 1000 American citizens can be controlled in no other way.

I am satisfied that no new election is possible under our Constitution, which says, "The election shall be held in December each year." No new ballot can be cast until December, 1903, and none of us desires 12 months to elapse and nothing doing. The matter has gone to the voters in the regular way, and they have decided for Mr. France. This should end the dispute. I think even Mr. Abbott would not desire to go to the voters again for another beating.

I think I am within the facts in saying that Mr. N. E. France, the General Manager-elect, has no enemies, and will make a good officer, satisfactory to all. Let him serve his term, and let our National Bee-Keepers' Association move on to victory. HERMAN F. MOORE.

CONVENTION NOTICES.—We would like to suggest to secretaries of bee-keepers' associations that they send in notices of their meetings at least 30 days in advance of holding the same. Recently we received two notices too late to get them published before the meetings were to be held. We are always glad to publish such notices if received in time, but, of course, it is of no use to have a notice appear after the meeting has been held.

We trust all secretaries who read this will kindly remember it. Also remember to write the convention notice on a separate sheet of paper.

MR. J. S. BARB AND APIARY.—When Mr. Barb sent the photograph for the engraving on the first page, he wrote thus:

I send a picture showing our home and a part of my apiary. My grandfather, Gabriel Barb, settled on this place in September, 1821. He had built a log-house where our present home now stands, which was built in 1863. When my grandfather moved here he brought a colony of bees along in the old log-gum that my left hand is resting upon.

My father, Isaac Barb, was born in the log-house Dec. 18, 1822, and lived all his life on this place until he died, Nov. 21, 1886. I was born in the old log-house March 5, 1850, and have lived all my life so far on the old farm, and will stay here the rest of my life. Bees have been kept continually since 1836, and there will be bees kept here as long as I stay. Is it any wonder that I love to work with the bees?

In the foreground of the picture are two other pioneer hives, also a straw-hive that

was made 34 years ago. I have an old box-hive that father used to keep his bees in, and in the season of 1869 he took a box of honey from that hive that held a little over 30 pounds, and it sold for 30 cents per pound; it came to \$10, and the next year he took a box from the same hive which weighed 36 pounds. This box was sold at 25 cents per pound, and brought \$9, or \$19 worth of honey from the same colony in two seasons.

In 1870 we started with 25 old colonies; the first swarm issued June 5 or 6, and from that time until July 3 we had 76 swarms. Our bees were nearly all in box-hives, and we did not know then about cutting out queen-cells and returning after-swarms.

In the fall of 1874 we had 30 colonies when winter began, and in the spring of 1875 there were 8 colonies left. In the fall of 1878 father had 36 colonies and I had 9. In the spring of 1879 he had 3 colonies left and I had none. I had some fun that spring taking out honey from the hives and getting out beeswax. We took nearly 200 pounds of honey from the hives the bees died in, and 60 pounds of beeswax. Those were some of my earlier experiences in keeping bees. I have had some about as discouraging since, still I stick to the bees (and they stick pretty close to me, sometimes, too).

You will notice a hive to the left of the tractor; that colony belongs to a stock of bees that were on the farm of my uncle, William Sanger, near North Bristol, Ohio, for over 90 years before I brought it over to its present location, as I am keeping it on shares now. There were 4 colonies when I brought them over four years ago last spring, but only one is left. I got a rousing swarm from it last season. I took nearly 50 pounds of extracted honey from the 2-story hive back of me at my right.

There are two hives, one on each side of my wife, and also one back of the 2-story hive which has two cases of sections on. I traded a 5-weeks old pig for those 3 colonies, and 15 cents extra, a year ago the first part of last June. I got about 40 pounds of honey from them last season. I wintered all three of them, and another colony I got on another trade two years ago last June is shown right back of the hive between my wife and me. From those 4 colonies and their increase (3 swarms) I took nearly 150 pounds of comb honey last season. My best yield from one colony is 55 pounds of comb honey; total yield about 250 pounds of comb, and nearly 50 pounds of extracted honey.

I commenced the season with 14 colonies, bought 4 swarms at \$1.00 each, I furnishing the hives, and I now have 29 colonies. I gave the boy at my right in the picture two after-swarms put together—one July 2 and one July 4. August 13 they cast a good-sized swarm with a young queen, as I heard two young queens piping in the hive the evening before.

Those chaff hives shown between the two trees in the upper row are empty. The tree back of me is a hard-maple tree which was planted in the spring of 1876—Centennial year; it measures 5 feet in circumference a little above the ground. I carried it nearly a quarter of a mile when I planted it.

The other persons in the picture are my wife, Eliza Barb, her nephew, Harry Royer (who is living with us), and my aunt, Mrs. Elizabeth Duhl, my father's only sister, who was also born in the old log-house Jan. 29, 1830.

I call this the Hillside Pioneer Apiary. I commenced taking the American Bee Journal in January, 1883, and have taken it ever since. It grows better and better. J. S. BARB.

## Keep Them Going.

"One step won't take you very far—  
You've got to keep on walking;  
One word won't tell folks who you are—  
You've got to keep on talking.  
"One inch won't make you very tall—  
You've got to keep on growing;  
One little ad. won't do it all—  
You've got to keep them going."

—The Implement and Vehicle News.



## Contributed Articles.

### WAX-PRESSES.

#### Their Advantages Over the Sun-Extractors— Directions for Making and Using a Cheap But Effective Hot-Water Extractor.

BY H. H. ROOT.

WERE we to go to Cuba we should find some men who keep bees only for the wax they produce. Much of the honey is fed back or wasted, because the natives think it pays them better to ship the wax than to bother with the honey. If they were to come here to the United States they would find some men who run apiaries solely for the purpose of getting the honey, paying no attention to the wax, but wasting it by throwing away old combs, etc. These men represent extremes, and probably there are not many bee-keeper who would advocate either method; but it is a recognized fact that a great amount of wax is wasted by being thrown away as dirt, old comb, etc. It is pretty generally known now that the sun-extractors are not the most economical in the long run. They have their uses, and are very convenient to leave in some handy place in the apiary, to act as a receptacle for small pieces of burr-comb which collect all the time. I do not know that any estimate can be given of the percent of wax that is wasted in rendering old combs in a sun-extractor, as it depends on the age of the combs, and how much dirt there is in them.

Lately the most up-to-date bee-keepers are beginning to use extractors in which the wax is pressed out of the old comb by means of a screw or a heavy lever, while the contents are heated above the melting point. There are three methods of rendering from old combs: 1. Pressure on the combs, when heated by steam; 2. Pressure under hot water; 3. Pressure on the comb which has been heated somewhere else.

In my experiments with wax-presses I consider steam-presses by far the most efficient. They are quicker, easier to operate, and do better work. Some have said that the old comb should be under hot water when the pressure is applied, because, as the mass of wax oozes out from the dirt, it instantly floats to the surface, giving place to that which may come afterwards; or, in other words, the hot-water method "takes in the slack." However, I believe this to be simply theory. I do not see why melted wax can not drop down from the old comb, which is surrounded by steam, just as well as it can float up from it when surrounded by hot water. Lest some one should say this is also theory, I would state that by actual test I have proven its correctness.

All other things being equal in my experiments, I have found that there can be just as much wax obtained by the steam method, and in much less time, than by the hot-water method. Aside from this, there are many objections to the hot-water. The juices from the dead bees or larvae give the water a very dark, reddish-brown color, darkening the wax to a very great extent. After the pressure has been applied, and about all the wax comes out of the old comb that will come, it is then very hard to get the melted wax off the surface of the water. The only way is to let the whole mass cool so it may be taken from the top in the form of a cake.

In the third, the comb is heated in a wash-boiler or some other receptacle on the stove, and then poured into the press. I have not had as good results with this as with the other two. I admit that it is a quicker method; but when a bee-keeper renders out wax it is usually done in the winter, when his time is not the most important item. I am convinced that a great deal of wax is left in the comb unless the said comb is kept at a high temperature during the process of pressing. Again, lest some should say that this is theory, or that my experiments have not been made correctly, I would say that one writer, after reading an article in *Gleanings in Bee-Culture* for Sept. 15, on the subject of wax-presses, stated that he could get more wax by his method of pressing the comb after it had been heated elsewhere than by pressing it in hot water or steam. To prove his statements he sent a sample of the pressed-out comb, saying that we could test it for ourselves, to show that it

contained no wax. As he suggested, we did test his sample in hot water, and found that it contained 25 percent pure wax. I do not mean that this method of pressing out old combs, which has been heated in another receptacle, leaves 25 percent of wax, but I do assert that it leaves a great deal more wax than the two other methods—that is, of pressing under hot water or with steam.

In describing a home-made press, since steam would require a more expensive apparatus, I will tell about a home-made wax-press using hot water as the method of heating, and giving very good results, though not as quickly as with a steam press:

The first thing to get is a water-tight barrel. Saw it off, making a tub about one foot in depth. Bore a hole in one side near the bottom, and insert a short piece of pipe, to be used to drain off the hot water and wax after pressing. A wooden plug should be fitted into the end of this pipe, to act as a valve.

We must next consider how we are going to apply the pressure—with a screw or with a lever. In my experiments either works about the same, only a lever takes two to operate it, making it more expensive, and not quite so quick. I prefer a screw, and used such a one as can be found in an ordinary carpenter's bench-vice—something that can be obtained very cheaply at any hardware store. A cross-piece of hardwood, 4 inches wide by 3 inches thick, should be placed across the top of the tub, and one of corresponding dimensions underneath. These should be connected by two side-pieces, also of hard wood, about an inch from each side of the tub, and the whole firmly clamped together by long half-inch bolts with heavy washers. The nut belonging to the screw should be placed in a hole bored through the middle of the hardwood piece extending across the top of the tub, and the tub itself is to rest on the under piece. A plunger must be made having a smooth, hard top on which the screw is to rest.

When ready to begin operations, wrap up (in cheese-cloth) about 5 pounds of old comb or refuse from the solar wax-extractor, and place this package of comb in the tub. Next, pour on top of this one good-sized pailful of boiling water. It will be enough since the tub is only one foot high. Place the plunger on top, and slowly turn the screw down. The wax will immediately float to the top until the screw is clear down. Next, turn the screw up; and after tipping up the plunger with a stick, haul over the contents of the cheese-cloth package, and again apply the pressure. By this time all the wax, or as much as can be obtained, will be at the surface of the hot water, and the whole may be poured off or drawn off through the spout, and allowed to cool. By keeping four or five pailfuls of water going it is not difficult to have hot water as fast as necessary. In this way I succeeded in getting 18 ounces as the average amount of wax from 5 pounds of very old combs, and in less than 20 minutes. This amount would, of course, vary greatly according to the age of the comb and the amount of dirt or old cocoons in it.

Save up your old combs; and some winter day, when your time is not worth much, render them out and you will be surprised at the amount of wax that you receive. You can easily make 50 cents an hour—a very low figure—and in time which would otherwise be worth very little.

Medina Co., Ohio.

### Easy Bee-Keeping—Prolific Queens—Introducing.

BY E. A. MORGAN.

ON page 776 (1902), in an article by F. Greiner, reference is made to the bee-keepers' convention last winter where a friend gave his management of bees. It consisted in giving plenty of room—two extra 10-frame brood-chambers full of comb were added below. It prevented swarming.

It might have prevented it in one instance, but it is not the want of room which causes bees to swarm, especially Carniolans; location controls everything. It is prosperity that makes bees swarm. I well remember several years ago paying an enormous price for a few non-swarming queens warranted never to swarm. But in my location every one swarmed, though given as much room as our friend gave. I learned later that they were reared in a district of great scarcity, and had not enough prosperity to swarm.

The advice given—invest \$60 in catnip, keep 15 colonies of bees, then give plenty of room and go a-fishing 5 days of

the week, would hardly work up here. The fishing on Yellow river is good, but the mosquitoes here in the woods are No. 12 size, and the way they attack a man, piercing right through a thick coat and gloves, makes it impossible to fish; to me every bite is worse than a bee-sting.

Four hundred pounds surplus per colony, at 15 cents—6000 pounds \$900, *a la* Dr. Gandy. Investigation proved only a small garden patch of catnip was growing in his vicinity, and no honey in sight. I think catnip and sweet clover good honey-plants, and the planting should be encouraged, but none of us expects to get 400 pounds surplus per colony, with \$60 worth of seed sown, and few will make a living at bee-keeping and go a-fishing 5 days in the week.

#### PROLIFICNESS OF QUEENS.

Mr. W. J. Stahmann, page 776, speaking of prolificness of queens says we cannot have prolific queens without a large hive, and in his experience a queen reared and allowed to lay eggs for a space of a week or more in a small hive, or having a small amount of bees, will seldom make a prolific queen, regardless of the stock she comes from. I have been a queen-breeder quite extensively for 20 years, and have all my queens mated in 2-frame nuclei, keeping them there until I have orders for them or want to use them myself, and I often keep them one or two months in such nuclei with a small force of bees, without in any way affecting their prolificness. When introduced to a mammoth colony they are just as prolific and long-lived as though mated in a big hive. In fact, I think all queen-breeders confine young queens to small quarters for a longer period than one week, without injuring them.

#### TROUBLE IN INTRODUCING A QUEEN.

On page 779 (1902) if Washington had placed his queen in a Miller cage at once instead of waiting 48 hours, then in 48 hours removed the plug, filling the entrance with a little comb and honey, then close the hive, in two days she would have been laying. Waiting 48 hours after removing the old queen gives the bees time to start queen-cells, then they will continue to rear them and become hostile to a new queen. My plan is to run their own queen into the introducing cage, let her run around a few minutes, then destroy her and run the new queen in the same cage, thereby getting the scent of their own queen, then no trouble will occur.

The question was once asked Josh Billings which was best, a large or a small hive, and arguments of advocates of each presented. He said both were right. The man with a small hive was right, for he never had bees and honey enough to fill his hive; and the one with a large hive was also right, for he couldn't get a hive large enough to hold his bees and honey. Hence it is a matter of location. This is the reason we all differ. Disposition of bees are changed by location.

Chippewa Co., Wis.



### Chunk Honey—Various Apiarian Kinks.

BY J. M. YOUNG.

**E**VERY fall, after all the supers are taken from the hives, I overhaul all the unfinished sections, cut out what honey there is in them, trim the unfilled cells all off, and sell this as chunk honey. By putting it in a vessel of some kind, it can be sold to the grocers very readily, and can be put in common wooden dishes the same as butter is sold to customers. By this means the bee-keeper can get rid of everything in the comb-honey line that will not do to sell otherwise.

#### PAINTING HIVES AND SUPERS.

I don't see how an up-to-date bee-keeper can get along without having his hives painted. It certainly pays. The advantage of having them look clean and nice is one big item. I would paint the supers one color, and the hives another; the edge of the queen-excluders would be of a different shade, as well as the edges of the honey-boards. I now have hives in my apiary that have been painted 20 years that look very well yet, although they have been painted a time or two within this time. The advantages of having them painted are many, and a hive should not be set out even one season without being painted.

#### EXTRACTING-COMBS PREFERRED TO SUPERS.

In the early part of the season I select all such colonies as seem a little weak, or that are not likely to work in the supers, and fit them up with extracting-combs for extract-

ing purposes; by this means every colony in the yard can be made to bring the bee-keeper in some revenue, that otherwise would lie around idle. Of course, plenty of combs should be given these weak colonies, and they should have good queens to start with. Colonies that won't work in the supers will store honey in the combs if given them. It will be a surprise to see the amount these weak colonies will store.

#### ROTTEN WOOD FOR SMOKER-FUEL.

I notice that some of the bee-keepers are talking up smoker material. I have always used rotten wood for smoke, and it is best and cheapest. Every spring I take the team and go to the woods and select old rotten logs—basswood if I can get it, and I usually do—and haul home a wagon-box of it, put it some place where it will dry quickly, and when dry it will light instantly with a match after being put in the smoker. It makes a good smoke, and is cheap, and it can be obtained wherever there is timber. I sometimes put it up in barrels, and put it away in some out-building.

#### BEES UNDER SNOW.

Whenever the snow begins to melt then it is time to shovel it away from the entrance or the front part of the hives, but not until it does begin to melt. Disturb the bees as little as possible, unless they begin to fly. The more bees are disturbed when it is cold, the worse it is for them. If there is snow on the hives, or in the corners, I would get it away from them, for when it begins to melt it will run into the hives more or less and wet the bees over the packing. Bees in the winter season must be kept dry if they are wintered successfully. It will not hurt them to be in a snow-drift—I don't advise their being covered clean up, but it will not hurt them for a short time. Since we have been in business my bees have been covered up several times by snow-drifts, so that if I didn't know where they were I could not find them. My experience has been that they won't smother if they are covered clear up with snow, if the hive is kept so that it will not leak.

Cass Co., Nebr.

## Convention Proceedings.

### Report of the Ontario Bee-Keepers' Convention, Held at Barre, Ont., Canada, Dec. 16, 17 and 18, 1902.

REPORTED BY MORLEY PHTTIT.

(Continued from page 70.)

#### PERCENTAGE OF WATER IN HONEY.

Frank T. Shutt, M. G. F. I. C. Chemist, Dominion Experimental Farm at Ottawa, outlined some important experiments which he has been conducting relative to the percentage of water in honey under various conditions. His first work was to lay the foundation for his experiments by demonstrating that the method of determining the percentage of water in honey followed by other chemists who have published reports, is unreliable, because to expose honey for a length of time to a very high temperature causes it to lose weight by decomposition of levulose, as well as by evaporation. This he explained to the bee-keepers' convention at Woodstock last year.

The method which he adopted and found satisfactory is to expose the honey on sand or pumice for a length of time at a comparatively low temperature, 60 degrees C., and in a partial vacuum. He then experimented with honey from uncapped, partly capped, and capped comb, kept in glass-stoppered and cheese-cloth-covered bottles, in a dry and in a moist atmosphere. The results show that while honey in an ordinary atmosphere lost slightly, that preserved in a saturated atmosphere gained considerably in weight, due to absorption of moisture. Where honey was exposed to a saturated atmosphere the normal percentage of moisture—about 15 percent—increased in one case to 31 percent, and in another instance where the honey was exposed in a flat dish, to 48 percent. Throughout the experiments honey was found to have a great affinity for moisture. That from partly capped combs contains less water than that from un-



capped, but more than that from capped combs. The percentage also varies with the season. Honey containing more than the normal percentage of water, not only is thin and unattractive, but readily ferments. These results and the experience of our best bee-keepers show that honey should not be extracted until all or at least partly capped. It should then be exposed as little as possible to the air, and unless sealed perfectly should be kept in a dry place. If these simple rules be followed it will keep indefinitely.

Prof. Shutt showed the result of his experiments in three charts.

## EXPERIMENTS ON STORAGE OF HONEY—1902.

		Percentage of Water.
Honey as extracted from capped comb .....		15.88
A	Honey exposed to dry atmosphere one month .....	14.24
	Honey exposed to moist atmosphere one month .....	31.46
B	Honey exposed to dry atmosphere 20 days .....	13.84
	Honey exposed to moist atmosphere 20 days .....	48.23
A—Honey in glass cylinder.		
B—Honey in open flat dish.		

## WATER IN HONEY—1901.

WHERE KEPT.	BOTTLE CLOSED WITH.	EXTRACTION.	ANALYSIS.	PERCENTAGE OF WATER.
Capped	Honey-house .....	G.S.		15.46
	Cellar .....	C.C.		15.89
	Honey-house .....	G.S.	Aug. 6th	16.95
	Cellar .....	C.C.		15.84
Part capped	Honey-house .....	G.S.		19.12
	Cellar .....	C.C.		20.68
	Honey-house .....	G.S.	July 1st	20.63
	Cellar .....	C.C.		21.03
Uncapped	Honey-house .....	G.S.		19.57
	Cellar .....	C.C.		19.24
	Honey-house .....	G.S.	July 1st	18.25
	Cellar .....	C.C.		22.09

## WATER IN HONEY—1902.

Capped	Laboratory .....	G.S.	Aug. 7th	Nov. 6th	15.78
	Honey-house .....	C.C.	"	"	15.88
	Laboratory .....	G.S.	"	"	17.35
	Honey-house .....	C.C.	"	"	16.25
Part capped	Laboratory .....	G.S.	July 7th	Nov. 6th	16.58
	Honey-house .....	C.C.	"	"	15.33
	Laboratory .....	G.S.	"	"	15.31
	Honey-house .....	C.C.	"	"	15.90
Uncapped	Laboratory .....	G.S.	July 7th	Nov. 6th	17.13
	Honey-house .....	C.C.	"	"	16.33
	Laboratory .....	G.S.	"	"	17.56
	Honey-house .....	C.C.	"	"	16.18

G.S.—Glass Stopper.  
C.C.—Cheese Cloth.

Mr. Holtermann—These results are very important. They should be placed in the hands of buyers to teach them the proper care of honey.

Mr. Heise—When the weight of honey increases by the absorption of moisture, does the bulk also increase?

Mr. Darling—We know that it does by the way honey in comb swells out against the capping when in a damp place.

By motion of Messrs. Gemmill and Holmes, a vote of thanks was tendered Prof. Shutt and Prof. Creelman, for the instructive and inspiring manner in which they had addressed this convention.

## SUPPLYING MOISTURE IN A DRY CELLAR.

"Is it advisable to supply moisture in cellar-wintering in the case of a very dry cellar?"

Mr. Holtermann—There is more danger from a dry cellar than from a moist one. A bee-cellar should have a wet-and-dry bulb thermometer to test the matter.

Mr. Holtermann thought the air should be almost saturated. He would like to see the matter thoroughly tested. In the cellar where he is wintering his bees the fresh air passes first through a small room where there is a stove to warm it slightly if necessary. When he considers the cellar too dry he sets two buckets of water in the room, with a blanket extending from one to the other in such a manner that it is kept soaked with water. This exposes a large surface of moisture to the dry air, which takes up the water and itself becomes moist.

Mr. Dickenson thought a damp cellar all right.

Mr. Sibbald prefers a dry cellar, but can make any cellar dry if it is large enough to partition off a room for the

bees. This seems to make the bees' compartment dryer. Where possible, he has a hole in the ceiling for ventilation, then piles straw and chaff, or sawdust, over it to keep the air from escaping too rapidly.

Mr. Post experimented with the hygrometer in his cellar last winter, and decided that 2 degrees between the wet and dry bulb thermometer was about the right thing.

## EXTRACTING-COMBS FROM A FOUL-BROODY COLONY.

"Is it safe to use again extracting-combs that have been used over a colony slightly affected with foul brood, said combs having been over a queen-excluder and have never had brood in them?"

Mr. McEvoy said it was perfectly safe for a skilled man who understood all the conditions; but he thought it better always to err on the safe side.

## RELIQUEFYING HONEY IN GLASS JARS.

"How liquefy honey which has granulated in glass jars?"

Have a large pan to reach clear across the stove with a slatted frame to hold the bottles. Loosen the corks. As soon as the honey is liquefied seal it up again while yet hot.

## MOVING BEES ON SLEIGHS.

"Is there much risk in moving bees on sleighs in winter?"

Mr. Holtermann told of buying bees in New York State in the fall of 1901. They were hauled to the train on sleighs, shipped to Brantford, and hauled on wagons to the apiary. They stood ten days in the yard, but as the weather remained cool they were put into the cellar without a cleansing flight. Any one can imagine the condition they were in; in the abdomen of each bee was a globule of watery feces—the first stages of dysentery. Mr. Holtermann raised the cellar temperature to 72 degrees, Fahr., for two weeks, until the bees, upon examination, were found to have these globules literally dried out of them. He then lowered the temperature to about 40 degrees, Fahr., and kept it as near there as possible the rest of the winter. No dysentery appeared, and the bees came out in good shape in spring.

In the evening W. Z. Hutchinson's paper, on "Commercial Organization," was read by the Secretary, after which the members banqueted in the dining hall of the Queen's Hotel.

## THURSDAY MORNING.

The report of the committee on honey exchange was read by W. A. Chrysler, as follows:

## ONTARIO HONEY EXCHANGE.

This Association shall be called "The Ontario Honey Exchange," and a commercial part of the Ontario Bee-Keepers' Association, and shall include in its jurisdiction the Province of Ontario, with such additional territory as from time to time may be found feasible to organize.

Its object is to establish a reliable and fair market price for the product of its members, the more proper distribution of honey, and to establish, when advisable, foreign and distant Canadian markets.

The main officers of the Exchange shall consist of five Directors elected by the members of the Ontario Bee-Keepers' Association at each annual meeting, and to hold office for one year, and shall direct all business of the Exchange.

As soon as elected they shall elect from their number a President, Vice-President, Secretary, Treasurer, and Business Manager, who shall be known as officers of the Ontario Honey Exchange.

They will choose a location and obtain by rental or otherwise, a suitable office and warerooms in some central city, that shall be known as headquarters.

They shall, where feasible, appoint one or more persons to organize each district that is not already organized into a District Bee-Keepers' Association, and should be affiliated with the Ontario Bee-Keepers' Association.

To all such affiliated societies instructions shall be given from the main office for the collecting and forwarding of honey, beeswax, etc.

The local affiliated societies may elect from their number, called a local manager, who shall be made responsible to the local association, and that to the main office for all moneys and goods he may be entrusted with.

It shall be the duty of the local association to appoint their secretary or local manager, to obtain statistics of honey, bees, etc., in his district, when called upon by the General Manager to do so, and shall include other informa-

tion, such as estimates of the amount of honey produced, the amount that members will require to sell to consumers and the retail trade on their own account, and the amount likely to be placed in the Exchange. Also, if a shortage in the district, the amount that could profitably be shipped in.

Members in unorganized districts in any part of Canada shall also be requested from the head office to report on the honey crop, and estimates similar to local associations. In case some may not wish to join either the local association or Honey Exchange, the local manager, or a member, may offer them within a business margin of the selling price of honey, and place it in the Exchange on his own account, or as his own honey. (He will have the privilege of receiving an advance in money on his producing a warehouse receipt.) They will not then sell to others for a less price.

Funds may be advanced to members by the Exchange to the amount of three-fifths of the value of honey consigned, and charge the current bank interest.

The directors of headquarters of the Exchange, on obtaining crop reports from the local associations and others, shall set the prices of the different grades of honey for a certain period; at the end of such time specified they may lower, raise, or maintain same prices as the market will warrant.

All honey sold by the Exchange shall be graded according to rules adopted by the Ontario Bee-Keepers' Association.

Honey sold from the local managers' warerooms, and also that of headquarters, must be graded by the member supplying it, and re-examined and graded, if necessary, by the Manager in each warehouse.

All honey received by the Exchange for sale must be branded and sealed by the stamp of the Ontario Honey Exchange, and backed by a good, strong guarantee.

The duties of the President, Vice-President, Secretary, Treasurer, and Business Manager, shall be arranged by the Provisional Directors, as circumstances will admit, until the constitution and by-laws are thoroughly revised and amended, ready for incorporation.

The remuneration of the five (commercial) directors shall be determined by the directors of the Ontario Bee-Keepers' Association, and shall be taken from the dues and profits of goods handled.

It should be the object of the Exchange to place the honey as near as possible to the consumer, saving extra transportation and commission for its members.

The funds for carrying on the Exchange will be obtained by plans and in a manner advised by the directorate.

W. A. CHRYSLER.

Mr. Sibbald—This matter is most important. The number of bees kept in this country is increasing rapidly.

Mr. McEvoy—The business is going into the hands of specialists.

Mr. Sibbald—If we organized only for the sake of crop reports, it would be worth while. In the case of failure in one part, and over-production in another, the honey could be equalized, and a uniform price and uniform consumption could be maintained in the Province. We would also prevent the over-crowding of central markets which is now prevalent. We could soon learn how much honey is produced in the Province, how much consumed, and consequently what would need to be exported.

If there were a registered trade mark we could know just where our honey goes, and get at the source of adulteration. Then, in the matter of advertising, individually we have not sufficient capital, but by systematic advertising by an Exchange the consumption of honey could be doubled, and more.

An Exchange could afford to export the surplus honey at a sacrifice in order to keep the home market brisk. It would come alike to all. We do not wish to enhance the price so as to make it prohibitive, we want only a fair and uniform price. Organized reporting and systematic grading would make the indifferent bee-man spruce up and produce a better article.

It was resolved that the bee-men present meet at the close of the convention to organize a honey exchange.

Moved by J. D. Evans, seconded by R. F. Holtermann, this Association will co-operate with the directors of the Industrial Exhibition, Toronto, in making the Dominion Exhibition, to be held by them, a success, and that the President and Secretary forward a petition to the Dominion Government, asking financial aid to said exhibition. Carried.

Mr. Fixter brought up the matter of exhibiting at St. Louis, urging that preparations be begun at once in order

that we might put up a creditable exhibit there. It was decided that the matter be left in the hands of the executive.

On motion, it was decided that the executive committee meet Mr. Creelman, Provincial Superintendent of Farmers' Institutes, and make arrangements with him to help this Association in advertising its meetings and getting out programs.

A vote of thanks was tendered to Mr. Fixter for bringing up and urging the matter of a honey exhibit at St. Louis.

On motion, the Board of Directors were allowed to grant money for organizing a honey exchange.

(The End.)

## Our Bee-Keeping Sisters

Conducted by EMMA M. WILSON, Marengo, Ill.

### Mrs. West and Bee-Keeping in the South.

At the Denver convention one of the many bee-keeping sisters that I enjoyed meeting very much was Mrs. West, of Texas. She is a brisk business woman, has very decided views, and a unique manner of expressing them. It was a pleasure to me to hear her talk. Those that met her at Denver will, I feel sure, be glad to see the communication from her in this number. If she would, I feel sure she might give us a good many interesting and instructive items about bee-keeping in the South.

### Bottom Foundation Starters in Sections.

One of the things it may be worth while for us to talk about a little is whether it is best to have a bottom starter in the sections or not. Some one may say, "What do you want a bottom starter for, anyway? A top starter is all that is needed to make the bees build straight, isn't it?" Yes, they will get along very well with only a top starter so far as building straight is concerned, but is that all that is needed? Don't you have any trouble with having your honey break out of the section, especially if you ship it? Now, doesn't most of the trouble from breakage come from the fact that the honey is not securely fastened to the bottom of the sections, as it was at the top?

If it is securely fastened to the section all around, built solid full, isn't it pretty safe from breakage, with good handling? Then doesn't it look a good deal better?

If it is securely fastened at the top and part way down the sides, there is great danger from breakage, but if it is securely fastened at the top and bottom, even if not fastened at the sides at all, it is pretty safe. But if it is securely fastened at the top and bottom, you need not worry about the sides—they will be fastened all right.

Another thing: During a slow flow—and especially is this true with a weak colony—the bees will sometimes draw out only one side of the foundation, and fill it with honey, and the weight will cause it to sag over to one side, and it will be fastened to the separator. This will not happen with the two pieces, for the first thing the bees will do will be to fasten together the two pieces, even if they do not put any honey in.

A good size for the top piece is  $3\frac{1}{4}$  inches deep, and for the bottom starter  $\frac{1}{2}$ -inch deep. If the bottom starters are made deeper they will fall over and make trouble, and the bees will sometimes gnaw them down if they are much shallower. That would leave a  $\frac{1}{8}$  inch space between the pieces, providing there was no waste in the foundation by fastening it in; but that waste increases the space to something more than  $\frac{1}{8}$  of an inch.

This space between the pieces does away with any sag there might be by the stretching of the foundation, and the result is a straight, well-filled, securely-fastened section of comb honey.

### Reading in Winter—Other Comments.

I notice on page 25 one of the subscribers asks to have discontinued her copy of the American Bee Journal until



spring. Well, I don't want anything like that. We have the "A B C of Bee-Culture," "Cook's Manual," Doolittle's "Scientific Queen-Rearing," and other bee-books. Then I take two other bee-papers besides the Bee Journal, and they are all full of good instructions. I am afraid I'd miss something by letting the Bee Journal go by. I do not consider myself so smart in intellect, but have sense enough to read more than one book in the winter.

Well, don't you think the Baron quite a smart fellow to inject long life into his queens? And he signs his name right. His story reminds me of other long-winded stories about catnip and large yields of honey.

You will remember a bee-keeper was telling us at the Denver convention about a Texas honey-producer selling adulterated honey, or trying to do so. Well, I wrote to the one who reported it at Denver, and asked him to send me a letter so I could send it to the Bee Journal, but no, he will not do it. He went all around with excuses, and so on, but will not come out on the adulterated-honey question. I want to be honest in all my dealings, and will be; so should be the bee-keepers all over the land.

My bees went into winter quarters in good shape in November.

I sowed horsemint, and it is up well; in the spring I will plant quite a lot of sunflowers, and they are something the bees like so much.

Well, Miss Snyder struck the keynote when she said bees did not like a dirty smell. Bless the little bees, how I love them! First, because they are so industrious; and then they are so clean. I have no use for a dirty, lazy person, and never blame the bees for "doing business" with such people.

MRS. C. R. WEST.

Ellis Co., Tex., Jan. 14.

## \* The Afterthought. \*

The "Old Reliable" seen through New and Unreliable Glasses.  
By E. E. HASTY, Sta. B Rural, Toledo, O.

### FEEDING BY WHOLESALE.

It's pretty lively business—187 pounds per hour—for bees to carry away feed in the open air. Divided among the 97 colonies it is about 2 pounds per colony per hour. Presumably some would get more, and some slow coaches quite a bit less than that. Mr. Hall's simple arrangements are worth remembering, in that they worked tolerably well. Page 812.

### SPREADING PEAR-BLIGHT.

Half inclined to say that Prof. Cook "gave us away" badly, and reprehensibly, in admitting that bees spread pear-blight on trees never in bloom, while their *alibi* was entirely unbroken. We know very well they wouldn't touch blight-juice in time of nectar-flow. Will they touch it at all? We demand that *somebody* should see them. Surely, on rows of little nursery trees they would not be hard to see. Page 813.

### A RAPID STYLE OF INCREASE.

Keeping the old colony mainly together, and taking out one comb from time to time, thought to be the most rapid style of increase. Looks reasonable. But in that style of procedure watch out lest you chill or starve lots of unsealed brood. Page 814.

### COMBS COLORING HONEY.

Dr. Mason rather got the drop on the convention about honey from black combs being normally white. Still, perhaps we should discount his evidence a little. In actual use I think bees polish the interior of a cell every time they use it. Put honey into a comb yourself and there is a lack of this polish. It's pretty plain that the rough, unpolished surface would give out more coloring matter than the polished surface would. With all discounts made, however, it's lawful to give the combs which are not black the preference. But it's not a pleasant question—the question, Must I sacrifice most of my extracting-combs and get new ones built? Page 822.

### GROWING ALFALFA IN THE EAST.

So the plains folk caught the alfalfa woodchuck because they had to catch him or starve. We see. Not being

driven to it our luck has been less. J. E. Johnson says "no doubt" the right bug can be developed here in time without using inhabited soil. Hardly so strong as that. Common clover has animalculæ which serve a similar purpose to itself. If these differ only very slightly from the ones under consideration, probably he is right. If otherwise, such accommodation to live on a new plant might take too long. Especially, we must remember, the accommodation can not begin till they begin to live on the alfalfa to some extent. Might be driven to begin in a very dry soil in which nothing else was growing—and perhaps this is one reason for the better success in dry regions. Page 823.

### CHAFF-HIVES IN COLORADO.

Old and worn but not settled. What a lot of other things in apiculture are just so, too, Mr. Aikin! And your experience is chaff-hives in Colorado winter bees hardly as well as singles do. Pin for that! Page 823.

### FILLING CASES WITH SECTIONS OF HONEY.

All around first, and last in the center—is Mr. Holdener's way to fill section-cases that have paper trays in them. Perchance Mr. Doolittle was thinking about cases that have only two tiers, and in which every section touches the tray somewhere. A tin guide is manifestly needed for these. Page 828.

### KEEPING BEES ON SHARES.

L. E. Kerr seems to hold the belt as the champion bees-on-shares man. Has 200 colonies out thus, scattered 300 miles. Also keeping some on shares himself. Never any trouble. We are surprised to see past report and repute so traversed. Having an itemized bargain fully written down seems to be the secret. Must be a quite reasonable man in addition. Page 828.

## Questions and Answers.

CONDUCTED BY

DR. C. C. MILLER, Marengo, Ill.

(The Questions may be mailed to the Bee Journal office, or to Dr. Miller direct, when he will answer them here. Please do not ask the Doctor to send answers by mail.—EDITOR.)

### Tartaric Acid to Prevent Honey-Granulation.

Will you please inform me by return mail, what kind of acid is used in syrup to keep it from granulating? And how much of the acid is used to a gallon of syrup?

TENNESSEE.

ANSWER.—An even teaspoonful of tartaric acid for every 30 pounds of sugar is stirred into the syrup about the time the sugar is dissolved. The acid is first dissolved in a little water.

Now it seems a tough thing that I am not allowed to answer that by mail; but then you can easily see that if I answer your question by mail I must answer others, and that would take a lot of time that I can't afford. You wouldn't like it if I'd answer some one else by mail and wouldn't answer your questions by mail, would you? Neither would they like it for me to answer yours and not theirs. So long as I can not answer all by mail don't you think it the best plan for me to treat all alike, and answer all in this department?

### Rapidity of a Honey-Extractor.

About how many revolutions in a minute should comb-baskets in a honey-extractor go?

MINNESOTA.

ANSWER.—I don't know, and I don't think any one knows, for there is no fixed number of revolutions so long as there is a difference in extractors and combs to be extracted. An extractor in which the comb is a great distance from the center of the shaft will not need to revolve so rapidly as one with the comb nearer the shaft. A new and tender comb will not stand so rapid turning as an old, tough one. But you will soon learn by experience, for so long as the comb stands it without injury you may feel safe that you are not turning too fast.

### Getting Propolis Off Fence Separators—Keeping Pollen Out of Sections.

1. Is there any other way of getting the propolis off of fence separators besides the tiresome way of scraping? Will boiling injure the glued joints?

2. Is there any sure way of keeping pollen out of the sections, where the swarm is hived on starters, in brood-frames, on the old stand, with supers partly filled placed on a new hive? MICHIGAN.

ANSWERS.—1. I don't know of any better way than to scrape. Boiling in water would dissolve the glue, and would not be a success in removing the propolis.

2. I don't believe there is, if you give the sections at the time of hiving. Better wait two or three days after hiving before you give the sections; then the bees will have such a start in the brood-chamber that they will not want to carry pollen above.

### Moving Bees in Winter-Cases.

Would you advise moving 30 colonies of bees, in winter-cases, 6 miles on sleighs? or would you wait until spring? If done now, what precautions are necessary? CANADA.

ANSWER.—If convenient, it would be as well to wait till spring. If moved now, take pains to avoid having the combs tip over sidewise, or swing from side to side, especially when the cold is very severe. When quite cold the combs are brittle and easily broken.

### Feeding Bees in Winter.

I have a few colonies that have not quite enough honey to run them through the winter, so I would like to feed them, but as I have never done any of it before, I would like to know how to do it, at this time of year. What is the best and cheapest feed for them? KANSAS.

ANSWER.—That's one of the things that you will find fully answered in your bee-book, and it will be the best investment you can make to get a bee-book if you have none. You will find from the book that if you have no combs of honey the best thing will be to make cakes of candy an inch or so thick. Just boil the sugar in a little water, being very sure not to let it burn, pour it into greased pans, and when cold lay a cake over the top-bars and cover up close.

### Comb Honey for Home Use—Propolisin.

1. I am running for comb honey. How would it work to put super foundation in brood-frames and set the hive over a strong colony, with a queen-excluder between the hives, and use the honey thus stored for my own table? Would they store more honey by so doing?

2. In the January number of Gleanings there is mention made of a "propolisin" for sores. Can you tell me how it is prepared? MINNESOTA.

ANSWERS.—1. It will work well, and I think you will get more honey. A good many Texas bee-keepers are quite enthusiastic about bulk honey, producing comb honey in the way you speak of, cutting it up and packing it in cans, and then filling up with extracted honey.

2. I don't know how "propolisin" is prepared, as I think the process has never been made public. It is quite possible, however, that you could get the same benefit with very little preparation. If the propolis is soft, it might be spread on a cloth and applied where desired, and if hard it might be powered and mixed with lard or melted tallow.

### Keeping Queens—Transferring Bees.

1. When is a queen-cell ripe?

2. Where should the queen-cells be kept until we can use the queens?

3. We have some queens which we wish to keep until spring, when we will transfer some blacks out of old box-hives. Where should we keep them?

4. We have some queens that we have put in strong colonies, that have not mated. There will be some warm weather through the winter, that the bees will stir out, but they have no drones. Will the queens lay through the win-

ter, or will they wait until next spring, when drones will be reared?

5. When would be a good time to commence transferring from box-hives, in this locality? ALABAMA.

ANSWERS.—1. The term "ripe" is applied to a queen-cell when it is near the time for the young queen to emerge, perhaps any time within two days, possibly within three, of emergence. When a cell is sealed, you may know that at the farthest it will be only about eight days till the young queen emerges. Usually the sharp point of the cell will be gnawed away something like two days before hatching, leaving the cell quite rounding at the end. When a number of cells are shut in with an excluder in a strong colony, as mentioned on page 761 (1902), the time being all right for swarming, the bees will allow only one of them to emerge, and you can open the hive and take out any cells that are very ripe, these cells having the cap partly gnawed open by the young queen within. Of course the free queen can also be taken out, if you should happen to see her. The bees will keep the young queens (all but one) imprisoned in the cells a day or more after they are ripe enough so you can see the slit where the cap is partly gnawed open.

2. You can keep the cells in a nucleus until one of them hatches, when all the rest of the cells will be destroyed unless you remove or cage them. In other words, you can keep only one queen in a nucleus.

3. You may succeed in keeping them in nuclei.

4. You should not expect your unmated queens to lay through the winter, and their chances for mating next spring are not good.

5. Transfer in time of fruit-bloom, or perhaps better still, wait till the colony swarms, and then transfer three weeks after swarming.

### What Caused the Foul Brood?

Ten or 12 years ago I lost a large part of my bees during the winter, by bad honey; they got the dysentery, and the combs were in bad shape for swarms and nuclei. I could not get them cleaned by the bees so I bought 8 pounds of foundation, and in the summer I tried to increase as fast as I could. The first few nuclei I made had combs, and then I made a few that had foundation, and after awhile I found they had foul brood, but those on the full combs were healthy. I burned all the nuclei that were sick, made new ones, and gave them foundation; only a few were on full combs, but as soon as they had brood then they had foul-brood again, but not in those that had full frames, but every one that had a little foundation in. They were burned and also the rest of the foundation, and a little later on one hive more; all the other colonies kept free from the sickness. Was it possible that the germs of the disease were in the foundation? Or were the nuclei affected in some other way? MINNESOTA.

ANSWER.—According to what you tell about the matter, it looks very much as if the foundation was to blame, and yet it has been generally understood as a fully settled thing that even if foundation were made from diseased combs there would be no danger. In spite of appearances, I am of the opinion that the foundation was not to blame.

### Removing Honey from Bait-Sections.

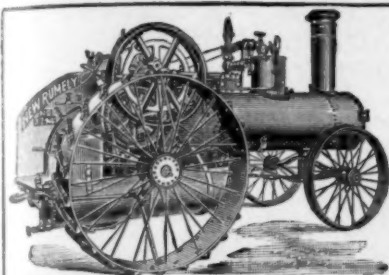
I sent a sample of some comb honey which my bees gathered in September. Please examine it and tell me what it is gathered from?

From the first it never seemed to be a liquid, but more like molasses sugar; later it became quite hard and white. Do you think the bees will carry it out in the spring?

I have quite a number of bait-sections with it in. I set the sections out for the bees to clean out last fall, but they left that in. NEW YORK.

ANSWER.—I don't know from what the honey was gathered, but it is certainly very solid, and withal quite tough. I am very much afraid you can not get it emptied out of the sections so as to make them proper for bait-sections. By spraying them with water as often as the bees lick them dry, you may get them emptied out, but some of the granules might remain, and that is generally considered objectionable. Perhaps the best thing will be to melt them up, heating them carefully and slowly so as not to injure the flavor of the honey, then taking off the cake of wax when cooled.





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## What Yon Yonson Thinks

Vel, my goodness, ay don't kin understand vy for dom hav such plenty awful big rumpus bout da general manager muddle. Ay tank if dom don't stop deirs quavarning, an play fair, dom goan to all fall in da puddle. Den ay lak to know who goan to hole da lines an keep das N. B. K. A. ban' vagon in da middle of da road.

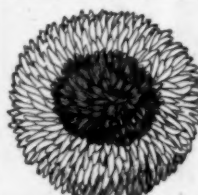
My goodness, Peter Peterson, he yust bean purdneer to join himself into das N. B. K. A., but now he say if dom goan to hav big fiteing den he tank dom hav to excuse Peter. For long time ago ay read sermon in Gleanings on Mr. A. I. Gleanings, he say dat Satan yust lurned a new trick. My goodness, ay tank he bean springing som new trick on da officers of da N. B. K. A. ven dom big bee-mans vot love each odder plenty much for long time, an for menny years dom bean pat each odder on da back an say, "He (Mr. Abbott) iss a awful smart feller, an he les plenty honest and good tempernce man, an he les yust da feller for general manager;" an den all dom big bee-mans, vat dom call directors, dom vote for him and he vas elected, and every ting seems to be going so nice som a little red vagon, but dom forgot to greas dat vagon vid da oil of human kindness, and it seems dom all vont to ride in da frunt seat. But da vagon begins to run awful heavy, an mak awful big nois an racket, an ay tank if dom all goan to ride in da frunt seat dom better greas da frunt veels any vay, and it is nutting better dan da oil of human kindness.

My goodness, ay like all dom big bee-mans, an' ay believe dom all les good an honest, but Satan is trying to slip into deirs hearts so dom can't love each odder an overlook each odder's faults. My goodness, ve all have faults, an if ve don't overlook each other's faults, den da Lord don't goan to forgive our faults, an he say ve haff to go to da left hand' side vid all da goats; an den da bad man goan to ride us on da goat, and it goan to go awful hard vid us, an ve be awful sorry.

My goodness, vy for can't we love each odder, and tak each odder by da hand, an all work togedder? Dom directors acknowledge dom mak da mistake vot cause das rumpus. Now, vy for shall other people suffer for da mistake of da directors? Did not our Savior suffer for us all? An' don't he say if ve hate ours brother ve shal never enter da kingdom of heaven? If ve love ours brodder let us show it in ours akshuns, an' da N. B. K. A. shal grow an flourish as da green bay-tree.

Now let us all stop fiteing each odder, an fite Satan, an da slop hunny mans, and da foul brood, an so on. Dere is plenty to do, so let us not stay home an quavral lak children, but let us go out in da field an work, an not monkey roun' till it bean purdneer sundown. An' if anybody vot feel lak dom vont to fite, let dom fite sin an Satan. Ay tank ve all can find him purty close to home.

Ay tank now ve come to big hill, an it is time for Yon Yonson to push, and if dom officers vil yust tak off da break an dom bee-mans vil all help, ve vill soon be goan hally hooping agin. Tak new start, hav lection over, an have it fair, an all dom fellers vat mak bee-papers, don't tell us forty-seven times



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YON YONSON.

### FROM MANY FIELDS

#### Results of the Season of 1902.

I had 18 colonies come out in good shape last spring, and increased to 23. I had to feed all through June, when they ought to have been rushing in white clover. I got no honey until August 15, then there was a good flow from buckwheat, goldenrod, white asters, and numerous other fall flowers, from which we secured 950 pounds of honey in the 4x5x13 plain sections, which sells at 12 and 14 cents per pound in the market. J. R. KAMMERER.  
Van Buren Co., Mich., Jan. 12.

#### Rearing Long-Lived Queens.

It was with great pleasure I read Mr. C. P. Dadant's article on "Rearing Long-Lived Queens," on page 807 (1902).

Mr. Dadant always hits from the shoulder, and yet so tempered with courtesy is the blow that it leaves no bruise. I read his articles with the deepest interest, feeling assured that whatever he advances has been fully tried and tested. This I also feel of the writings of Mr. Doolittle and Dr. Miller, and, now with this trio opposed to Dr. Gallup's charge of universally poor queens, I think that gentleman would display wisdom and discretion by retiring from the field.

I am not sure that Mr. Doolittle admits this attachment of the nymph to the cell is an "umbilical cord," certainly it has never so appeared to me. I have always looked upon it as a support to young royalty, made necessary by the inclination of the cell, and, if I am right, it will not be found in case of the worker, as the position of the cell does not require it. I have seen this attachment in the chrysalis of other insects, and while it may answer as a means of conveying nourishment, corresponding to the umbilical cord in animals, I am yet to be convinced of it.

Mr. Dadant's article can be profitably read by all interested in queen-rearing, and particularly by those who, in search for something new, are inclined to turn aside and "Gallup" up any "Alley" that presents itself.

C. S. HARRIS.

Volusia Co., Fla., Dec. 25.

#### Results of the Past Season.

On the last day of May, 1902, I bought 26 colonies of bees. They were in pretty fair shape, except one very weak colony which I built up by giving combs of brood from other colonies.

As it was so cold during June and July they did not make a big record, but increased only to 42, and stored 1200 pounds of comb and extracted honey.

I dispose of my honey in the home market. The extracted I put in 1-quart Mason jars, and sold at 35 cents per jar. The comb honey I sold at 12½ to 15 cents per section, for the fair to good grades.

Most of the bees in this part of the country are wintered in cellars, although I think they can be wintered as successfully outdoors, and I think I shall try it that way next winter.

To make cows pay, use Sharples Cream Separators  
Book Business Dairying & Cat. 212 free. W. Chester, Pa.



The wintering problem is one thing the beekeepers in the Salt River Valley, Arizona, where I used to live, do not have to contend with.

White clover here this year was still blooming on Oct. 25, and the bees were working on it.

In answer to the question of F. Durant, page 812, concerning ginseng, if the ground is properly prepared, and other things favorable, it will be marketable in from 7 to 10 years after planting for the seed to germinate.

I think the American Bee Journal is a good paper, and wish it every success.  
Benzie Co., Mich., Jan. 5. B. L. BYER.

### Depend on White Clover.

The "Old Reliable" is all right, and I do not want to keep bees without it. The winter of 1901-02 was bad on the bees, about 2% of them dying in this neighborhood. We had 24 colonies and they all died but 7. These 7 colonies increased to 12 and stored 350 pounds of comb honey.

We have to depend on clover mostly; we have plenty of fruit-bloom, but we have nothing to count on except white clover. We have a very large paper-mill here and they take all linden, poplar, maple, and all kinds of white wood, so there is not much encouragement for bee-keeping here. But we will have to do as the old lady said, "Grin and bear it."

S. H. STAUFFER.  
Blair Co., Penna., Jan. 9.

### California and the Government Report.

California should be heard from, at least since Texas got so far ahead in that report, and Nebraska has all but taken California's laurels.

That report of 1899 was made in a very short year for California. Southern California produced about 74 cars of honey. Where

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**GOOD SEEDS**

SEND AT ONCE  
25c for our 25c for our  
Garden Seed Collection. Flower Seed Collection.  
10 big packages finest vegetable seeds. 25 varieties for 50c. 10 large packets beautiful flowers. 25 varieties for 50c.  
Both 25c Collections for 40c—both 50c Collections for 75c.  
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wants to sell you your Supplies. Send for their Catalog and Price-List of BEE-KEEPERS' SUPPLIES, free. Best goods for best prices. Address,

**THE WHITE MFG. CO.**  
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**DAIRYMEN ARE DELIGHTED**

to meet those who work for us. Cow keepers always have money. We start you in business. You make large profits. Easy work. We furnish capital. Send 10 cents for full line of samples and particulars.  
**DRAPER PUBLISHING CO., Chicago, Ills.**

## Honey For Sale.

2000 lbs. Basswood Extracted honey, at 9c a pound. All in 60-lb. cans. Warranted PURE HONEY. **JOHN WAGNER, BUENA VISTA, ILL.**  
Sati Please mention the Bee Journal.

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would Texas be in a year like 1897, with Southern California's crop of 500 cars, valued at \$600,000?

I notice also that the proportion of the Texas product is only 50 percent on the investment, while California, even in a short year (1899), yields nearly 100 percent, and Colorado 90 percent on investment.

That California report was from 6,000 farms, while Texas reported 60,000. I append the Government figures:

Value of bees in 1899	Value of product in 1899	Percent
California.....\$338,885	\$331,939	100
Colorado.....195,096	171,740	90
Texas.....849,483	488,527	50

B. S. K. BENNETT.

Los Angeles Co., Calif.

[The above was sent to Mr. Working, for the Denver convention, but was mislaid and not found in time, so is given now.—EDITOR.]

## Growing Alfalfa—Honey-Boards.

I would say to the readers of the American Bee Journal that they are wasting their time trying to raise alfalfa on ground that lifts with the freezing in the winter. Alfalfa will not grow where freezing pulls the fence-posts out of the ground. Where alfalfa does best the ground cracks open with the winter freezing, showing that it contracts. Alfalfa has very long roots, and although it will come up and grow well almost anywhere the first winter, if the ground is moist enough to raise the plant with the freezing; and this will be the case whether there are any tubercles on the roots or not.

Don't bother about the tubercles; if you have the land to grow it on, the tubercles will come.

I see no reports of better results than I had with a few bees last year. From 2 colonies, spring count, I increased to 7, and took off 545 finished sections of comb honey. From one 12th-of-June swarm, I took 201 finished sections.

If you use a honey-board it saves a lot of daubed sections to turn the side with the strips on up, and hold it a bee-space above the sections by driving four small nails through it, and let nails stick out a bee-space from the smooth side.

Heat escapes from the top; if bees have a good blanket of some absorbent, nonconducting substance on top, it seems to me it is useless to try to tuck them in at the side. A tank of water well protected on top will not freeze.

Phillips Co., Kans.

## A Queen-Introducing Experience.

I think it will be hard on bees around here this year. It is so long since they had a flight, some time about Nov. 20.

I had quite an experience with a queen I got last summer. I had a colony that lost their queen and were so for two or more weeks. I was away at the time and judged the time to be about that long. Well, I gave them 4 frames of brood fit to rear a queen, but they did not, so I sent for a queen, and received her all right. I changed cages, that is, I put the queen in a new cage, and introduced her in the evening, between the combs. Now, all the brood in the hive was about 10 days old, and no queen-cells in the hive. I looked at her the next morning, and found that she was out of the cage, and running about the combs as unconcerned as you please. I in-



For this complete set of 15 blacksmith tools. A wonderful bargain. Our catalog illustrates, describes and prices all kinds of tools for carpenters and blacksmiths. We sell any tool separate. We save you 50%.

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\$5.40 buys this complete set of 23 carpenter's tools and chest.



\$8.50 for 40 ft. Hay Carrier outfit. One carrier, 1 fork, 13 rafter irons and hooks, 180 ft. rope, 5 floor hooks, 3 pulleys.

Wood, steel and cable track outfit any length.

It has 432 pages, size 9x11 inches. Postage is 15c, but if you will cut this ad out and send it to us we will mail the catalog FREE.



\$13.60 for this 12-16 all steel disc harrow; has genuine Lundberg humpers. Dust proof oil tubes.

Most Perfect Made.

Other style disc for \$15.25. We save you about 15c in price.



\$2.78 for this sickle grinder; grinds heel and point at same time. Grinds 6 ft sickle in 10 min. With 1 stone for sickles, \$2.78. With 2 stones for grinding all kinds of tools, \$3.10.



\$2.80 for hand pump No. 151 with cylinder ready for use, with windmill head \$3.60.

95c. for No. 1 elstern or kitchen pump, with cylinder, 190 styles and sizes.

pumps, every kind made, at one-half retail prices. All kinds of pipe fitting.



\$16.50 for this 8 ft. Steel Mill; easiest running and strongest made. All sizes, 8 to 16 feet.

\$7.45 oblong galva nized 9 1/2 bbl. steel tank with heavy angle steel rims. We make all sizes and styles. Send for catalog.

MARVIN SMITH CO., 55-57-59 N. Jefferson St., CHICAGO, ILL.

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tended to leave her locked up until the bees would eat the candy and let her out by themselves, but in fixing the cage between the combs I guess they became pried open and she got out. Well, they didn't seem to mind her any, and I thought she was all right, and left them alone. About 10 days after, I looked at them and to my great surprise found 3 queen-cells and no queen. The cells were worker-cells, and so small that you would not think a worker could be reared in it. Sixteen days after introducing the queen, I looked again and found one queen out, and the others just coming out. I killed those 2 and left the one that was out first. I gave them some more brood, and some time afterward she started to lay, and kept right at it until cold weather started.

So you see, they were simple enough to kill one, they were wise enough to rear three.  
Dubuque Co., Iowa. JAMES KANE.

### CONVENTION NOTICE.

New York.—The annual meeting of the Oswego County Bee-Keepers' Association will be held at Fulton, N. Y., Saturday, March 7, 1903. Prof. Frank Benton will be present and address the meeting. An interesting program is being prepared, and all persons interested in bees are cordially invited to be present.

MORTIMER STEVENS, Pres.  
CHAS. B. ALLEN, Sec.

**FENCE! STRONGEST MADE.** Bull Strong, Chicken Tight. Sold to the Farmer at Wholesale Prices. Fully Warranted. Catalog Free. COILED SPRING FENCE CO. Box 89 Winchester, Indiana, U. S. A.

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R. 6, WINCHESTER, IND.  
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**SPLIT HICKORY vs. SAWED.**—A vehicle is only as strong as its weakest part. A wheel with hub spokes and felloes made from the strongest wood, if the wood is sawed across the grain, has little strength. The "Split

Hickory" line of vehicles, as their name indicates, is constructed of SPLIT hickory—not sawed—and is of greatest strength and endurance and uniformly strong in all its parts. To obtain these splendid, strong and stylish vehicles, send to Station 6, the Ohio Carriage Mfg. Co., Cincinnati, O., for complete illustrated catalog. Their prices are low, quality high, and their 30 days' free trial offer is genuine and bona fide. Please mention the American Bee Journal when writing them.



**TREE GROWN FROM SELECTED BEARING TREES** OUR BOOK HOW TO GROW FRUIT SEND FOR IT  
**TITUS NURSERY NEMAHAES**  
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### Queen-Clipping Device Free!



The MONETTE Queen-Clipping Device is a fine thing for use in catching and clipping Queens' wings. It is used by many beekeepers. Full printed directions sent with each one. We mail it for 25 cents; or will send it FREE as a premium for sending us One New subscriber to the Bee Journal for a year at \$1.00; or for \$1.10 we will mail the Bee Journal one year and the Clipping Device. Address,

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"Millions of Trees" is the title on the front cover of a very attractive catalog issued by our advertiser, D. Hill, the veteran grower of evergreens, at Dundee, Ill. Mr. Hill has been "at it" for more than 40 years, and is known not only all over this land, but in many foreign countries. He is a native of old England where forestry is more intelligently understood than here. He grows all his stock from seed and develops them into thrifty, hardy trees. Those who deal with him once do so again and again as need arises. Write for his catalog and mention the American Bee Journal when you do.

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We will present you with the first \$5 you take in to start you in a good paying business. Send 10 cents for full line of samples and directions how to begin.  
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### Tip-Top Glass Honey-Jars



The picture shown herewith represents the best one-pound jar for honey that we know of. It is made of the clearest flint glass, and when filled with honey, and a neat label attached, it makes as handsome a package as can be imagined. Its glass top sets on a flat rubber ring, and is held in place by a flat steel spring across the top as shown in the picture. It is practically air-tight, thus permitting no leak,

which is an important thing with honey-sellers.

We can furnish these jars, f.o.b. Chicago, at these prices: One gross, \$5.00; two gross, \$4.77 a gross; five or more gross \$4.50 per gross.

If you try them once you will likely use no other kind of top or sealing arrangement for honey jars.

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344 & 146 Erie Street, CHICAGO, ILL.

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That covers the whole Apicultural Field more completely than any other published, send \$1.20 to

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Sent free to all.

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25 years the best. Send for Circular.

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**\$300,000,000.00 A YEAR**  
and you may have part of it if you work for us. Uncle Sam's poultry product pays that sum. Send 10c for samples and particulars. We furnish capital to start you in business. Draper Publishing Co., Chicago, Ill.

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### HONEY AND BEESWAX MARKET QUOTATIONS.

CHICAGO, Jan. 9.—The demand is not more than usual; hence stocks are sufficient, especially as Cuba has now comb honey on this market. This is a new source of supply, and is a factor that must be reckoned with, as it obviates the necessity of laying in a stock during the summer and autumn to draw from in the winter and spring months. The best grades of white comb sell at 15@16c per pound, with travel-stained and light amber, 13@14c; darker grades, 10@12. Extracted, 7@8c for white, and 6@7c for ambers. Beeswax steady at 30c.

R. A. BURNETT & Co.

ALBANY, N. Y., Jan. 7.—Honey demand and receipts light. We quote white comb, 15 cents; mixed, 14c; buckwheat, 13@14c. Extracted, white, 7@7½c; dark and buckwheat, 7@7½c. More demand for buckwheat than any other here.

H. R. WRIGHT.

KANSAS CITY, Dec. 20.—Market steady at quotations. We quote fancy white comb, per case, 24 sections, \$3.50; No. 1 at \$3.40; No. 2 white and amber, \$3.25. Extracted, white, per pound, 7@7½c; amber, 6@6½c. Beeswax, 27@30c.

C. C. CLEMONS & Co.

CINCINNATI, Jan. 7.—The demand for all kinds of honey has fallen off considerably in the last few weeks, owing to the many other sweets offered at this season of the year. Lower prices are no inducement to increase the consumption, as the demand is not there, and will not be until about the end of the month; consequently it is folly to offer at lower prices. We quote amber extracted in barrels at 5½@6½c; white clover and basswood, 8@9½c. Fancy white comb honey, 16@17c; lower grades hard to sell at any price. Beeswax firm at 29@30c.

THE FRED W. MUTH CO.

NEW YORK, Jan. 23.—Demand for comb honey quiet on all grades, and prices show a downward tendency. Supply quite sufficient to meet demand, if not more so. We quote fancy white at 15c; No. 1, at 14c; No. 2, at from 12@13c; dark and buckwheat, at from 11@12c.

Extracted also quiet with abundant supplies with the exception of white clover. We quote white at 7c; amber at 6½c, and dark at 6c. Common in barrels from 60@65c per gallon.

Beeswax firm at from 29@30c.

HILDRETH & SORLKEN.

CINCINNATI, Jan. 20.—The demand for comb honey has fallen off, which in general happens right after the holidays, although prices rule as before: White clover, 15½c; extra fancy water-white, 16c; no demand for lower grades. Extracted honey is in fair demand, and sells as follows: Amber, in barrels, 5½@5¾c; in cans, 6c; alfalfa, 7½c; white clover, 7½@8½c. Beeswax, 28@30c.

C. H. W. WEBER.

SAN FRANCISCO, Jan. 14.—White comb honey, 11½@12½c; light amber, 10@11c; dark, 5@6½c. Extracted, white, 6@6½c; light amber, 5@5½c; amber, 4@4½c. Beeswax, good to choice, light, 26@27½c; strictly fancy light, 29@30c.

The country merchant, representative of trade interests, estimates "entire stock of honey of 1902 in the State at 15 cars," worth 5½@6c per pound at primary points, subject to a \$1.10 freight-rate to the East.

### WANTED WHITE CLOVER EXTRACTED HONEY!

Send sample and best price delivered here; also Fancy Comb wanted in no-drip cases.

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### Hives, Sections, Foundation,

etc. We can save you money. Send list of goods wanted and let us quote you prices. ROOT'S GOODS ONLY. Send for Catalog.

M. H. HUNT & SON, Bell Branch, Mich.

### The Emerson Binder

This Emerson stiff-board Binder with cloth back for the American Bee Journal we mail for but 60 cents; or we will send it with the Bee Journal for one year—both for only \$1.40. It is a fine thing to preserve the copies of the Journal as fast as they are received. If you have this "Emerson" no further binding is necessary.

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144 & 146 Erie Street, CHICAGO, ILL.

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Smokers,**AND EVERYTHING  
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**THE BEST  
White Alfalfa Honey**

ALL IN 60-LB. CANS



A sample by mail, 10c for package and postage. By freight, f.o.b. Chicago: 1 box of 2 cans (120 lbs.) at 8½c a pound; 2 boxes or more (4 or more cans), at 8c a pound. We can furnish Basswood Honey at ½c a pound more. (These prices are for selling again).

This Alfalfa Honey should go off like hot-cakes. Better order at once, and get a good supply for your customers.

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Send name for our Catalog, Samples of Foundation and Veil Material. We sell the best Veils, cotton or silk.

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The classic in Bee-Culture—Price, \$1.20, by mail.

**BEESWAX WANTED**  
at all times.**DADANT & SON,**  
Hamilton, Hancock Co., Ill**If you will take**

the pains to observe carefully the conditions of the honey market from time to time, you will not fail to appreciate the fact that there is a good demand for the fancy grades of honey at all times and at good prices, while the supply of the medium and poorer grades may be about equal to the demand.

**In Poor Seasons**then, you should produce the **very best grade possible**, because it brings a better price compared with the cost of production, and consequently a greater percent of profit, and**In Good Seasons**

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**Why not then buy**

hives and other supplies which are sure to increase the amount produced, raise the grade of honey obtained, and multiply the chances of securing the highest price because of the use of the very best goods obtainable?

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not only holds good in other lines, where the best grade is first sought after at the highest ruling price, but is also true in the selling of honey.

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